United States Environmental Protection Agency
Region 5
POLLUTION REPORT

Date: Tuesday, December 30, 2003
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Subject: Initial
Garfield Alloys Fire
4878 Chaincraft Road, Garfield Heights, OH

POLREP No.:	1	**Site #:**	593
Reporting Period:	12/29/03 - 12/30/03	**D.O. #:**	
Start Date:		**Response Authority:**	CERCLA
Mob Date:	12/29/2003	**Response Type:**	Emergency
Completion Date:		**NPL Status:**	Non NPL
CERCLIS ID #:		**Incident Category:**	Removal Assessment
RCRIS ID #:		**Contract #**	

Site Description
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The Garfield Alloys site is a massive fire that engulfed a magnesium recylcing facility. The facility (Garfield Alloys, Inc.) is located at 4878 Chaincraft Road, Garfield Heights, Cuyahoga County, Ohio. The property encompassess 4 buildings and is 16 acres in size. The site is bordered to the north by Norfolk Western Rail Road Line; to the west by Chaincraft Road; and to the south by Mill Creek. The facility processes and recycles magnesium into ingots for resale

Background

The fire started at approximately 1500 hours on December 29, 2003. The origin of the fire is unknown. Magnesium metal is highly reactive with moisture and, rainy weather conditions

on December 29th have complicated response efforts. Magnesium Oxide is the primary off-site release threat from this fire. Magnesium Oxide is a respiratory irritant. The Garfield Heights Fire Department is responding to this incident in coordination with Cuyahoga County Emergency Services, Ohio EPA, U.S. EPA, Cuyahoga County Board of Health, Cleveland Department of Public Health, Ohio Department of Health, Northeast Ohio Regional Sewer District, and numerous support Fire Departments. An evacuation was ordered for approximately 200 nearby residents. It is estimated that approximately 1/3 of the site has burned.

Current Activities

1. Current Situation.

U.S. EPA is assisting the local response team by assessing environmental and public health impacts from releases on- and off-site. U.S. EPA contractors are conducting continuous air monitoring for numerous hazard categories including particulates. Air samples have been collected to evaluate potential downwind impacts. Run-off water samples have been collected by NE Ohio Regional Sewer District responders to evaluate potential impacts to a nearby creek. U.S. EPA will continue 24-hour operations until it is determined that all releases are under control or negligable. U.S. EPA resources currently include On-Scene Coordinators (OSCs) and START/REAC contractor support.

1. Site Activities

At 1700 hours, on December 29, 2003, Ohio EPA requested U.S. EPA support in response to a massive industrial fire fueled by reactive magnesium metal (dross). Ohio EPA reported that the fire began at approximately 1500 hours. U.S. EPA mobilized three OSCs to assist Ohio EPA in assessing threats from air and water run-off releases. Consistent rain was present throughout most of the day and night hours.

At 1930 hours, U.S. EPA arrived on scene. The OSC met with local responders, mobilized the Superfund Technical Assessment and Response Team (START) contractor, and conducted a site walk-through. The START team arrived at approximately 2000 hours. Air monitoring commenced immediately for priority hazards (combustible gases, oxygen, explosive atmosphere, etc.). Particulate monitoring was conducted during periods of no rainfall. Throughout the night, monitoring continued, initial air samples were collected from the plume, and an assessment plan was developed to evaluate potential downwind hazards. Monitoring data was forwarded to the local response team and coordinated with air modelling, which was conducted by Cuyahoga County Emergency Services. The City of Cleveland Fire Department mobilized a field Gas Chromatograph/Mass Spectormeter (GC/MS) to the scene to provide real time analytical data for volitile organics in the smoke plume. No volitile compounds were detected.

On December 30, 2003, in the mid-morning hours, the fire had substantially died down. U.S. EPA took the lead on collection of air samples from the smoke plume and continued air

monitoring. The air samples are being analyzed for metals and hydrocarbons. The NE Ohio Sewer District collected run-off water samples to be analyzed for metal contamination. At 1600 hours, draft air sampling results for magnesium oxide were ported and are as follows:

Date	Result (mg/m3)
12/29/2003	0.26
12/29/2003	0.22
12/30/2003	0.84
12/30/2003	<0.12

Local and state Health departments are determining what recommeded action levels should be implemented for magnesium oxide with respect to air releases on this situation. Hydrocarbon data was reported as non-detect (

On December 30th, the ASPECT response aircraft has been mobilized from Region 7 to conduct thermal imaging, aereal photography, and provide a fourier transform infrared (FTIR) scan for magnesium oxide concentration in the plume.

Planned Removal Actions

- To be determined via assessment.

Next Steps

- Support local and state responders as requested.
- Continue air monitoring.
- Evaluate air and water sampling results.
- Work with Ohio EPA to develop an assessment plan (post fire).
- Provide thermal imaging, aereal photography and FTIR monitoring support (via ASPECT aircraft).

Key Issues

- Although the fire is burning down, there remain numerous areas of unburned magnesium metal that must be protected to prevent additional fires.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
RST/START	$0.00	$11,500.00	($11,500.00)	0.00%
REAC	$0.00	$4,000.00	($4,000.00)	0.00%

Intramural Costs

USEPA - Direct (Region, HQ)	$0.00	$3,000.00	($3,000.00)	0.00%
USEPA - InDirect	$0.00	$5,000.00	($5,000.00)	0.00%
Total Site Costs	$0.00	$23,500.00	($23,500.00)	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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